

Claims:

1. A system for transferring streaming data in packets from a first computer to a second computer through a network, comprising:

a repeater provided in the network, the repeater comprising a buffering controller for buffering a received packet for a set time period before forwarding it so that a receiving time interval of packets at the second computer is substantially equal to a sending time interval of packets at the first computer.

2. The system according to claim 1, wherein the set time period is determined depending on a reception condition of the second computer, wherein the second computer notifies the repeater of the reception condition.

3. The system according to claim 2, wherein the second computer has a buffering function of buffering received packets to absorb delay variations of the received packets.

4. The system according to claim 3, wherein the reception condition includes information of an available buffering capacity in the second computer.

5. The system according to claim 1, wherein the set time period is determined based on a difference between a time stamp of the received packet and a time stamp of a previously received packet.

6. The system according to claim 1, wherein the set time period is determined based on a playing rate of the streaming data, wherein the second computer notifies the repeater of the playing rate thereof.

7. The system according to claim 1, wherein the set time period is determined based on an average reception rate of packets received from the first computer at the repeater.

8. The system according to claim 1, wherein the buffering controller comprises:

a flow registration table for storing time information of packets for each streaming flow;

a packet memory for storing streaming packets for each streaming flow;

a packet analyzer for analyzing a received packet to discriminate a packet related to a streaming flow by searching the flow registration table for address and port number information of the received packet and storing flow information identifying the streaming flow into the flow registration table;

a header analyzer for analyzing a header of the

packet related to the streaming flow to produce time information of a streaming packet of the streaming flow and store the streaming packet into the packet memory;

a packet manager for storing the time information
5 of the streaming packet into the flow registration table and determining the set time period from the time information to produce sending time of the streaming packet; and

a packet sending controller for sending the
streaming packet to the second computer when the sending time
10 has come under control of the packet manager.

9. The system according to claim 8, wherein the packet manager adjusts the set time period depending on a reception condition of the second computer, wherein the second computer notifies the repeater of its reception condition.

15 10. The system according to claim 9, wherein the second computer produces the reception condition based on a difference between arrival timing of streaming packets received from the first computer and play timing of the streaming packets processed by an application.

20 11. The system according to claim 10, wherein the second computer includes a buffer for buffering received streaming packets to absorb delay variations thereof, wherein the reception condition includes information of a capacity of the

buffer and a currently available capacity of the buffer.

12. The system according to claim 8, wherein the packet manager adjusts the set time period based on a difference between a time stamp of the received packet and a time stamp
5 of a previously received packet.

13. The system according to claim 8, wherein the packet manager adjusts the set time period based on a playing rate of the streaming data at the second computer, wherein the second computer notifies the repeater of the playing rate
10 thereof.

14. The system according to claim 8, wherein the packet manager adjusts the set time period based on an average reception rate of packets received from the first computer at the repeater.

15 15. The system according to claim 8, wherein the packet analyzer forwards packets other than a packet related to a streaming flow to the second computer.

16. The system according to claim 1, wherein the first computer is a server, the second computer is a client, and
20 the network is an IP (Internet Protocol) network.

17. A method for transferring streaming data in packets from a first computer to a second computer through a network, comprising the steps of:

the first computer sending a streaming packet to a
5 repeater;

the repeater buffering the streaming packet for a set time period before forwarding it to the second computer so that a receiving time interval of packets at the second computer is substantially equal to a sending time interval of packets
10 at the first computer; and

the second computer buffering the streaming packet received from the repeater before reproducing it.

18. The method according to claim 17, wherein the set time period is adjusted depending on a reception condition of
15 the second computer.

19. A repeater for transferring streaming data in packets from a first computer to a second computer, comprising:

a flow registration table for storing time information of packets for each streaming flow;
20 a packet memory for storing streaming packets for each streaming flow;

a packet analyzer for analyzing a received packet to discriminate a packet related to a streaming flow by searching the flow registration table for address and port number

information of the received packet and storing flow information identifying the streaming flow into the flow registration table;

a header analyzer for analyzing a header of the packet related to the streaming flow to produce time information
5 of a streaming packet of the streaming flow and store the streaming packet into the packet memory;

a packet manager for storing the time information of the streaming packet into the flow registration table and determining the set time period from the time information to
10 produce sending time of the streaming packet; and

a packet sending controller for sending the streaming packet to the second computer when the sending time has come under control of the packet manager.

20. A method for transferring streaming data in packets
15 from a first computer to a second computer through a repeater, comprising the steps of:

at the repeater,

buffering streaming packets for each streaming flow received from the first computer; and

20 adjusting a time period during which a streaming packet for a streaming flow is waited for to be sent to the second computer so that a receiving time interval of packets at the second computer is substantially equal to a sending time interval of packets at the first computer.